

## FREIGHT RAILROADS BACKGROUND

In 2001, the railroad freight industry generated \$36.6 billion in revenue. Eight major railroad systems accounted for 92 percent of that total. The railroad industry set a new high for freight traffic of over 1.5 trillion revenue ton-miles (a unit of measurement that incorporates both weight and distance), up 2 percent from 2000.

**Structure.** In 2001, there were 8 Class I freight railroad systems--systems with annual operating revenue of approximately \$267 million or more—operating in the United States, 34 regional railroads (line-haul railroads operating at least 350 miles of road and/or earning revenue between \$40 million and the Class I threshold), and over 500 local railroads (line-haul railroads smaller than regional railroads).

	Class I RRs		Regional RRs		Local RRs	
	2001	1990	2001	1990	2001	1990
number	8	14	34	30	529	486
employment	162,155	209,708	10,302	11,578	11,912	14,257

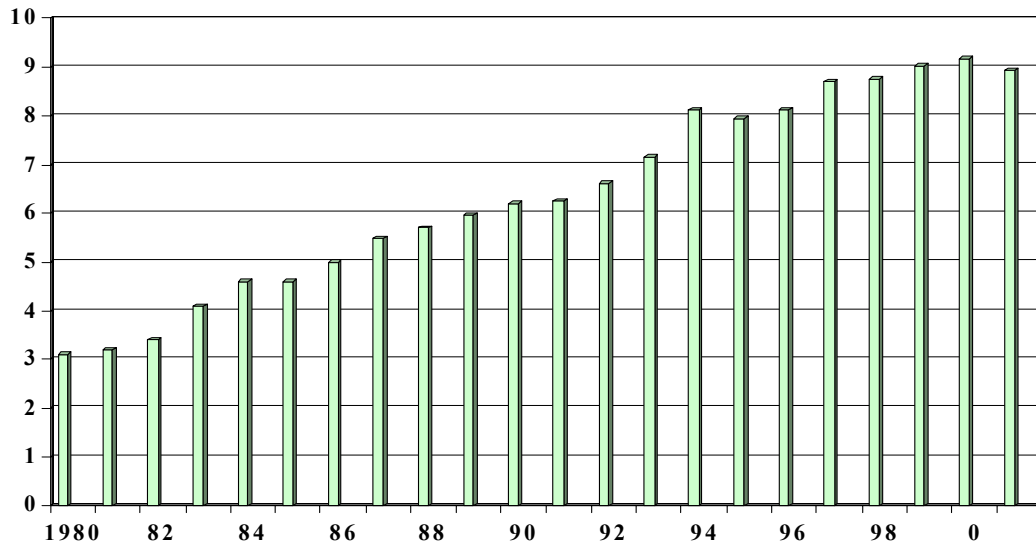
While Class I employment has fallen nearly 23 percent since 1990, regional and local employment has declined by 14 percent.

**Commodities.** In 2001, the major rail-carried commodities (in terms of tonmiles) included coal (41 percent), intermodal traffic (trailers and containers on flat cars) (15 percent), farm products (predominantly grain and soybeans) (9 percent), and chemical products (8 percent). The fastest growing segment of rail traffic has been intermodal traffic, with the number of trailers and containers increasing substantially from an average of 3.4 million loadings in the early 1980's, when doublestack container trains were introduced, to 8.9 million in 2001. The highest traffic corridor for intermodal traffic is between California and Illinois reflecting the land portion of container shipments between the U.S. and

Asia's Pacific Rim.

## INTERMODAL GROWTH:

TOFC/COFC LOADINGS IN MILLIONS OF UNITS



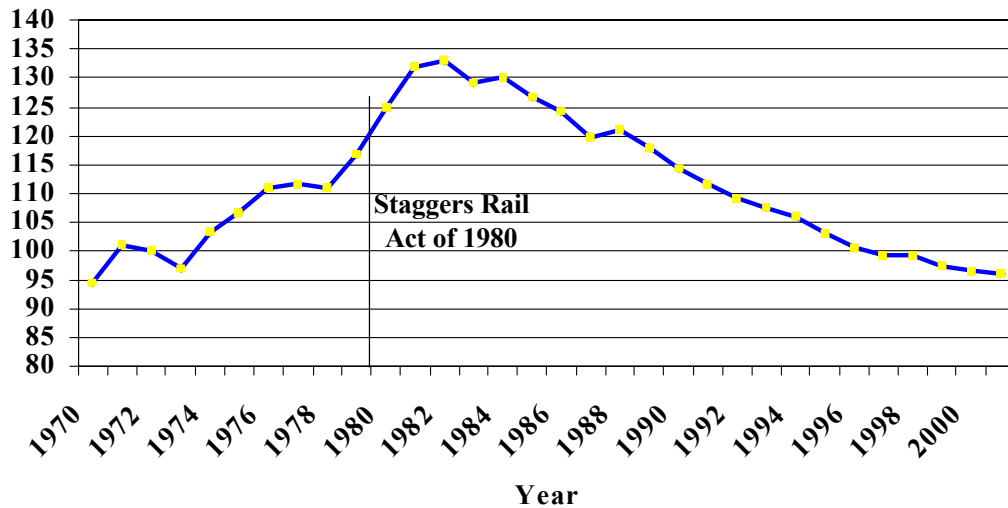
Source: Association of American Railroads, "Railroad Facts"

With the opening of the Powder River Basin in Wyoming in the late 1970s, U.S. coal shipments have grown dramatically from 4.8 million carloads to 7.3 million carloads (2001) as the railroads delivered low sulfur coal to help electric utilities achieve Clean Air Standards. The largest rail coal movements are from the Powder River Basin to electric generating plants in Illinois, Texas, and Missouri.

**Rates.** Freight rates adjusted for inflation have declined by an average of 1.6 percent a year between 1990 and 200, and since the passage of the Staggers Act of 1980, compared to an average increase of 2.9 percent per year in the 5 years prior to 1980.

# Railroad Rates After Inflation

1972=100



Sources: U.S. Dept. of Labor, Bureau of Labor Statistics, Producer Price Index of Line-Haul Operating Railroads; U.S. Dept. of Commerce, Bureau of Economic Analysis, Implicit Price Deflator for Gross Domestic Product

Between 1990 and 2001, the Class I freight railroads have averaged 7 percent return on their net investment, up from the 2 percent average in the 1970s.

**Productivity.** The railroads are responsible for maintaining their track, rights of way, and fleet of railcars and locomotives. Over the years, through mergers and rationalization of their plant, numerous low density or redundant lines have been abandoned or sold to smaller railroads. Since 1980, the Class I railroads have increased their traffic (ton-miles) by 63 percent, while their network (miles of road owned) declined by 41 percent. This has increased traffic density by concentrating traffic over a smaller network. Because of this increased density, the railroads have expanded capacity in their highest density corridors by double-tracking track in the last several years.

Between 1981, a few months after the Staggers Rail Act partially deregulated rail rates and services and 2001, the railroads have spent \$331 billion on capital and maintenance of their track and equipment. Capital expenditures have grown 50 percent from \$3.6 billion in 1990 to \$5.4 billion in 2001, or one-third faster than the increase in the price level of railroad purchases of inputs. Capital expenditures on roadway and structures increased 69 percent from \$2.6 billion in 1990 to \$4.4 billion in 2001, as railroads increased the percentage of rail weighing 130 pounds per yard or more from 50 percent of mileage in 1990 to 66 percent in 2001 to accommodate heavier loadings, such as increased coal shipments.

In terms of the capacity of railroad equipment, the total horsepower of the locomotive fleet, which is predominantly railroad-owned, increased by 29 percent during this period enabling the railroads to haul heavier trains, particularly trains moving coal out of the Powder River Basin, and high speed long distance intermodal trains. Total freight car capacity, however, has increased by 20 percent, with non-railroads, such as large shippers and leasing companies, increasing their fleets' capacity by 72 percent, while the railroad-owned fleet capacity has declined by 12 percent.

Between 1990 and 2001, freight railroads made major strides in improving productivity—nearly doubled from 4.8 to 9.3 million revenue ton-miles per employee as traffic increased and employment dropped. Less labor is needed, because of smaller crew sizes and the need for fewer interchanges between railroads due to mergers. More traffic, as measured by revenue ton-miles, has resulted from more frequent and heavier traffic moving longer distances. For example, increased coal shipments from Wyoming are moving further east to electric utility plants.

Freight railroads are also making more efficient use of fuel. Between 1990 and 2001, ton-miles per gallon of fuel consumed rose from 332 to

403. To make their operations more fuel efficient, the railroads have been moving longer distances between interchanges, rebuilding equipment and buying more fuel- efficient locomotives, using innovative equipment (for example, aluminum freight cars and double-stack cars), and reducing locomotive idling time.

To maintain or increase the railroad share of intercity traffic, the railroads must continue to aggressively market their services to existing and potential customers. To satisfy shipper needs for reliable service, the railroads need to continually adopt cost effective technological improvements, operate their plant, equipment, and labor force safely and efficiently, and expand their trackage where necessary.